Electronic Medical Records 101

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A quick word about the Community Health Network of West Virginia

- **The Network is a tax-exempt, non-profit health center-controlled West Virginia corporation – formed in 2000.**
- **The Network is primarily an application service provider (ASP) delivering centralized practice management, electronic medical records (EMR), and technology services for its members.**
- **Currently with 50 clinical locations in production using the Indian Health Services RPMS-EHR system (CCHIT-Certified, public domain / open source EHR derivation of the VA's VistA system)**
  - **80 FTE providers – 300+ concurrent users.**
  - **10 More clinics to implement over the next year.**

Healthcare as an industry today is very divided in its use of technology.....

State of Health Care Technology Today

Clinical & Treatment side

Business & Transactional side (EMR)

Healthcare as an industry is about
where the banking industry was 30 years ago.

Thirty years ago, the challenge was to create a hub to connect many banks with many retailers, so that a consumer could enter a store, swipe a card and have funds deducted from a given bank account. Now, the insurance companies are where the banks used to be, and the healthcare providers are in the position of the retailers.

"This is a $2.4 trillion industry run on handwritten notes," says 33-year-old Dr. Jay Parkinson. "We're using 3,000-year-old tools to deliver health care in the richest country on the planet."

Jay Parkinson, founder, Hello Health
Mixing non-conventional payment structure (monthly subscription fee, PayPal but no insurance) and eyebrow-raising communications (e-mail, instant messaging, even house visits), Jay's Hello Health offers a wildly popular alternative to the current model of high insurance costs and eight-minute office visits. http://jayparkinsonmd.com/

EMR use statistics?

- **Nationwide -**
  - **24% use EMR's according to Robert Wood Johnson**
  - **Less than that are using them in a "meaningful way."**
    - **Just documenting visit info**
    - **Not using the data**
    - **Hybrid systems with paper and electronic**

EMR use statistics in WV?

Medicaid Survey and WVSMF Survey

- **Avg. 30% using EMR's**
  - WV is a little better than national average because of all of the initiatives
- **Hospitals**
  - 55% using EMR
  - 21% underway
  - 17% planned
  - 7% no plans
- **Rural Health Clinics**
  - 65% using EMR
  - 15% planned
  - 20% no plans
- **Physicians**
  - 27% using EMR
  - 63% no plans

Barriers to EMR use?

- **Cost**
  - **Average is $60k per physician**
  - **Support is $15k per year per physician**
- **Time to implement**
- **Lost Productivity**
- **Nebulous ROI's**
  - **Benefits typically accrue to the payers and patients**
- **Software just not that good**

But Healthcare is in a disruption...

- **....and technology is disrupting healthcare**
  - **Reporting "Meaningful Use"**
  - **Patient Centered Medicine**
    - **PHR's**
- **Seeing lots of evolutions and adaptations**
  - **Similar to the Dot.Com Era**
- <u>Lots</u> **of change**
  - **New EMR's appearing from Dell and others**
  - **Mobile health (mHealth)**
  - **Getting better every day**

Electronic Medical Records

- **What exactly are electronic medical records? (EMR)**
    - **EMR's are systems that store medical information in discrete, reportable data fields**
    - **Not just scanned documents**
    - **Have certain functionalities in conjunction with the patient care process**

EMR Functionality

- Scheduling and Registration (practice management system functionality, typically available within an EMR application) Electronic preview of patient medical history, medications and diagnostic tests (i.e., patient chart)
- Electronic clinical documentation
- Electronic prescribing (prescription transmittal, medication history, formulary and benefits)
- Disease management protocols incorporated into documentation templates
- Patient reminders related to disease management
- Electronic ordering of diagnostic tests and results, including user-defined order-sets
- Population management and reporting for patients with common conditions such as diabetes, asthma, etc.
- Billing and receivables management (practice management functionality, often available within an EMR application)

Screenshot of VistA EMR

EMR Functionality

- **CCHIT?**
  - **Certification Commission for Health Information Technology**

  - **Founded in 2004, and certifying electronic health records (EHRs) since 2006, the Commission established the first comprehensive, practical definition of what capabilities were needed in these systems. The certification criteria were developed through a voluntary, consensus-based process engaging diverse stakeholders, and the Certification Commission was officially recognized by the Federal government as a certifying body.**

Value of EMR's?

- **Population benefits**
  - **$80 billion per year in savings per Rand Study**
  - **Improve quality, safety, and efficiency**
    - **Preventable medical errors**
    - **drug-drug interactions**
  - **Improve care coordination**
  - **Improve population and public health**
  - **Engage patients and their families**

Value of EMR's?

- **Individual Physician benefits**
  - **Possible lower costs**
  - **Possible higher billings**
  - **Better access to patient information**
- **This has been the problem with adoption**
  - **small benefit to the individual, but large benefit overall**

As business leaders why should I care about all this?

Economic Impact

- **Health care is the 2nd largest segment of the WV economy. WV ranks 2nd nationally for the percentage of its workforce employed in health care.**

- **Approximately 35,000 West Virginians base their careers in West Virginia's hospitals and health systems.**

- **Think about HIT/EMR as an economic engine**

EMR market potential?

HIMSS predicts $14.4 Billion in Hospital IT Spending over next 5 years - June 17, 2009

The Healthcare Information and Management Systems Society (HIMSS) discussed hospital spending trends June 16, based on the group's tracking of more than 5,000 U.S. hospitals. HIMSS pegged hospital outlays, impacted by the American Recovery and Reinvestment Act, at $14.4 billion through 2014. Expenditures on systems such as electronic medical records, computerized practitioner order entry and clinical decision support is expected to hit $1.7 billion this year.
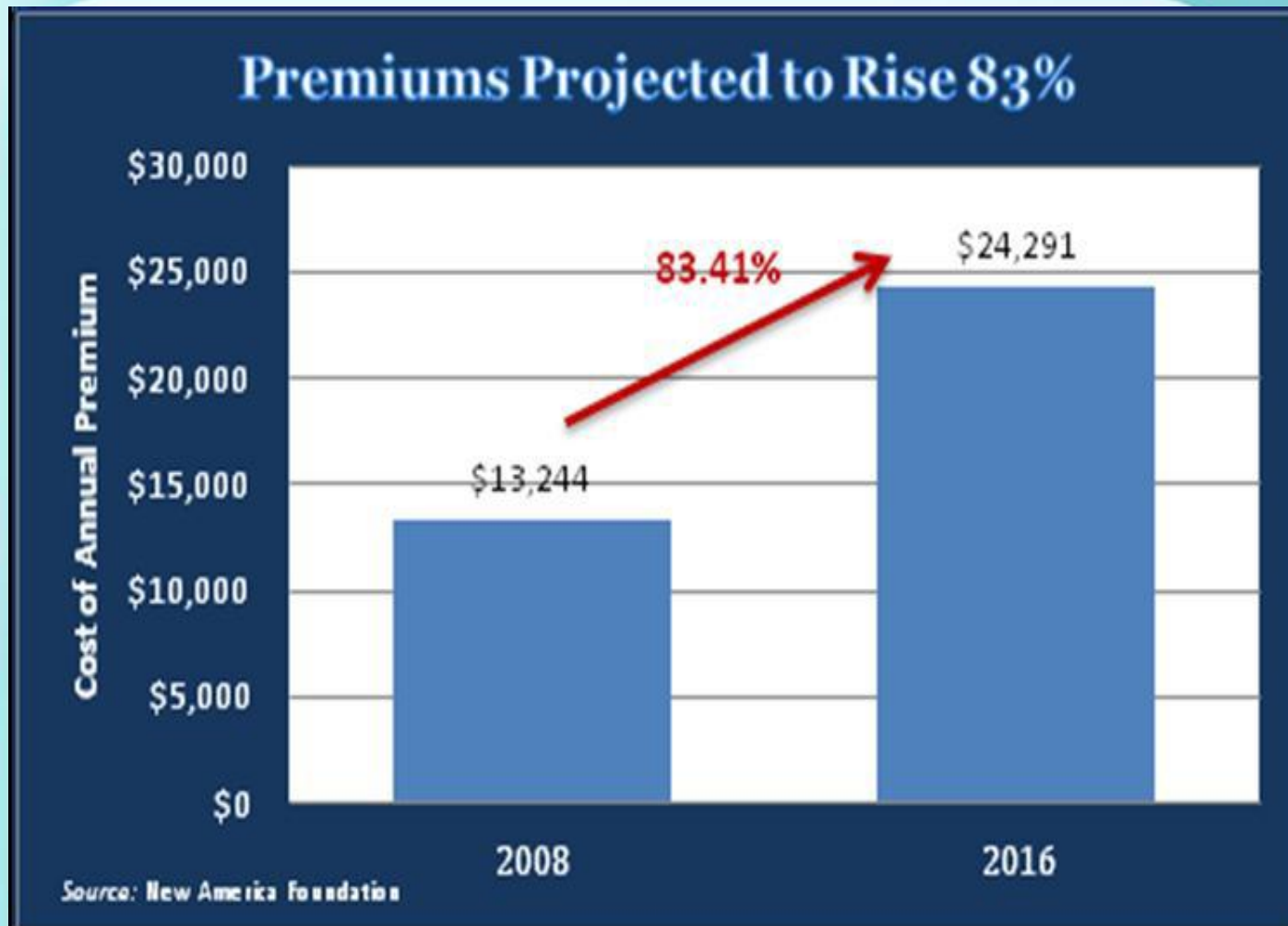
EMR market potential?

Kalorama Information forecasts the EMR market to grow by 14.1 % annually from $9.5 billion in 2007 to almost double that, $18.4 billion in 2012.

Not just software, but hardware and IT Services will increase dramatically.

EMR Future

- ## ARRA –
  - ### $17.2 billion in incentives for EMR adoption
    - Paid via Medicare OR Medicaid
    - Estimated $234 million+ could go to WV ambulatory providers over 4 years
    - Estimated $500+ million could go to WV acute hospitals over 4 years
      - Avg. hospital with 7,550 discharges and 50% Medicare share will receive $4 million over 4 years.
    - Must meet "meaningful use" criteria to achieve 100% of ARRA funds
  - ### $2 billion for the Office of the National Coordinator
    - Creation of Regional HIT Extension Centers
    - Health Information Exchange

Costs Continue to Rise

Premiums Projected to Rise 83%

83.41%

$24,291

$13,244

Cost of Annual Premium

$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0

2008   2016

Source: New America Foundation

Impact of HIT/EMR

98,000 patient deaths occur as a result of medical errors in U.S. hospitals annually, and about half of them are preventable.

"This is the equivalent of losing one commercial jumbo jet airliner full of about 270 passengers each day," he says. "Think of it as Medical Errors Airways. It's got a lot of jetliners, and one is going down every day."

Dr. Sanjay Kumar -
"FATAL CARE: Survive In The U.S. Health System "

The deaths don't get the kind of public attention crashes do, in part because the medical system is shrouded in mystery, Kumar says.

Impact of HIT/EMR

- **Studies indicate that 20 to 40% of diagnostic tests are duplicated due to lack of results being readily available. The study also suggests computerized physician order entry (CPOE) could eliminate 200,000 adverse drug events.**

- **Another study projects the potential benefit of full HIT integration as producing a "reduction in laboratory and radiology test ordering by 9 to 14%, lowering ancillary test charges by up to 8%, reducing hospital admissions, costing an average of $17,000 each, by 2-3%, and reducing excess medication usage by 11%." (GAO, GAO-05-309R, "Health and Human Services' Estimate of Health Care Cost Savings Resulting from the Use of Information Technology," February 17, 2005).**

Impact of HIT/EMR

- **Studies predict a gain of as much as 30 percent in efficiency from EMR use, mostly through reducing unnecessary tests and prescriptions, paperwork and medical mistakes.**

- **In West Virginia, this amounts to nearly a $4 billion savings.**

- **The savings could easily cover all the uninsured in WV**

EMR Future plans

- **WV State Initiatives –**
  - **WVHIN**
    - **Health Information Exchange**
      - **Seamless integration with other physician's EMR**
      - **Aid with Meaningful Use**
      - **ONC application**
  - **Medicaid Transformation**
    - **PHR**
    - **EMR pilots / incentives**
    - **Meaningful use / Payment reform**
  - **WVTA**
    - **Broadband for healthcare**
  - **WV Regional Health Information Technology Extension Center**
    - **Outreach**
    - **Technical Assistance**
    - **Aid with Meaningful Use**
    - **ONC application**

Questions?